

Abstract of the Disclosure

Software-based network attached storage (NAS) services hosted on a massively distributed computing system are disclosed. More particularly, a client agent program is configured to run on the network-connected client devices that are part of the distributed computing system to provide what appears to user devices as dedicated NAS functionality, for example, through the Internet or an intranet. This NAS functionality takes advantage of unused or under-utilized resources of these distributed devices to advantageously provide NAS capabilities. In addition, storage priority controls may be utilized to facilitate the full use of available storage resources, such as user specified constraints, standard bit, block or file priority levels and direct bit, block or file priority markings.